



Serial No. 09/580,411

Filed: May 30, 2000

The following is a complete copy of the specification with the amendments made as identified before.

RECEIVED  
MAY 24 2001  
TECHNOLOGY CENTER R3700



# COMPENSATING BLISTER DIE CUTTER APPARATUS

RECEIVED

This invention relates to a die cutter apparatus for severing blisters into individual blisters from a sheet of blisters which has been formed from a deformable transparent or translucent sheet of plastic material by a process known to those skilled in the art.

Blisters which are used in the blister packaging art are conventionally formed from a large sheet of plastic material which is heated and formed around molds to produce a plurality of the blisters as part of an integral sheet of plastic material. Because of the nature of the plastic from which the blisters are formed there is a shrinkage of the sheet upon cooling and the amount of shrinkage is dependent upon the chemical nature of the plastic from which the blisters are formed and is also dependent upon other factors too numerous to mention herein. As a result of the shrinkage, the individual blisters will end up when the sheet is cooled at various distances from each other which is inconsistent as between blisters when they are originally formed about their respective molds. In other words, the finished blisters on the formed sheet, because of the shrinkage referred to above, will have distances from their respective centerlines which is different from the centerlines of the molds used to form the blisters. As a result when it is desired to cut the individual blisters from the integral sheet and since they are varying distances apart, the blister itself will be offset from the flange surrounding it.

## Summary of the Invention

The present invention contemplates the construction of a blister die cutter unit which accommodates a cutter for each blister formed on a sheet of plastic material with each blister die cutter unit being movable relative to the other so as to accommodate the shrinkage and relative

movement of the blisters formed on the integral plastic sheet. This results in the provision that the rim or flange around each individual blister will be essentially concentric with the blister itself. This object of the invention will be observed with more particularity after an understanding of the structure and function which will be pointed out hereinafter.

5           Another object of the present invention is to produce a blister die cutter apparatus which is capable of cutting a plurality of blisters from an integral sheet on which the blisters are formed and producing an individual blister severed from the plastic sheet which is concentric with the rim or flange or ridge which is normally formed with each blister.

10           Another object of the invention is to provide a cutter apparatus which produces a blister which has a consistent flange about the severed blister which provides for a more reliable sealing function when it is subsequently sealed to a card which carries advertising indicia thereon and which carries the product within the blister.

15           Another object is to provide a blister die cutter apparatus which provides a finished blister which is more pleasing in appearance, more structurally sound and which functions to hold a product in a more reliable fashion to a card or substrate to which it is subsequently sealed.

#### Brief Description of the Drawings

Other objects and a full understanding of this invention may be had by referring to the following description and claims, taken in conjunction with the accompanying drawings, in which:

20           Fig. 1 is an isometric view of a plastic sheet which has been formed into a plurality of blisters in this illustrative embodiment the blisters being six in number;

Fig. 2 is a view taken generally along the line 2-2 of Fig. 1;